

1. Создайте двух пользователей которые имеют доступ к базе данных shop. Первому пользователю shop\_read должны быть доступны только запросы на чтение данных, второму пользователю shop — любые операции в пределах базы данных shop.

Пользователю shop\_reader назначаем права только на запросы на чтение данных

```
mysql> DROP USER IF EXISTS 'shop_reader'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE USER 'shop_reader'@'localhost' IDENTIFIED WITH sha256_password BY 'qwerty';
Query OK, 0 rows affected (0.01 sec)

mysql> GRANT SELECT ON shop.* TO 'shop_reader'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

Пробуем вставить значение в таблицу catalogs

```
flash@flash-VirtualBox:~$ mysql -u shop_reader -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 40
Server version: 5.7.30-0ubuntu0.18.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> INSERT INTO catalogs(name) VALUES('test');
ERROR 1046 (3D000): No database selected
mysql> USE shop;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> INSERT INTO catalogs(name) VALUES('test');
ERROR 1142 (42000): INSERT command denied to user 'shop_reader'@'localhost' for table 'catalogs'
```

Пробуем запрос SELECT, все работает

```
mysql> SELECT * FROM catalogs;
+----+-----+
| id | name  |
+----+-----+
|  1 | Процессоры |
|  2 | Мат.платы  |
|  3 | Видеокарты |
+----+-----+
```

2. (по желанию) Есть таблица (accounts), включающая в себя три столбца: id, name, password, которые содержат первичный ключ, имя пользователя и его пароль. Создайте представление username таблицы accounts, предоставляющее доступ к столбцам id и name. Создайте пользователя user\_read, который бы не имел доступа к таблице accounts, однако мог извлекать записи из представления username.

```
mysql> DROP TABLE IF EXISTS account;
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE account
-> (id SERIAL PRIMARY KEY,
->  name VARCHAR(255),
->  password VARCHAR(255));
Query OK, 0 rows affected (0.01 sec)

mysql> INSERT INTO account VALUES
-> (NULL, 'first', 'qwerty'),
-> (NULL, 'second', 'qwerty'),
-> (NULL, 'third', 'qwerty');
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> CREATE OR REPLACE VIEW test(user_id, user_name) AS
-> SELECT id, name FROM account;
Query OK, 0 rows affected (0.00 sec)

mysql> SELECT * FROM account;
+-----+-----+-----+
| id | name  | password |
+-----+-----+-----+
| 1  | first | qwerty  |
| 2  | second | qwerty  |
| 3  | third | qwerty  |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> SELECT * FROM test;
+-----+-----+
| user_id | user_name |
+-----+-----+
| 1       | first     |
| 2       | second    |
| 3       | third     |
+-----+-----+
3 rows in set (0.00 sec)
```

Создаем пользователя

```
mysql> DROP USER IF EXISTS 'shop_reader'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE USER 'shop_reader'@'localhost' IDENTIFIED WITH sha256_password BY 'qwerty';
Query OK, 0 rows affected (0.00 sec)
```

Предоставляем доступ к представлению test

```
mysql> GRANT SELECT ON shop.test TO 'shop_reader'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

Проверка

```
flash@flash-VirtualBox:~$ mysql -u shop_reader -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 42
Server version: 5.7.30-0ubuntu0.18.04.1 (Ubuntu)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> SELECT * FROM catalogs;
ERROR 1046 (3D000): No database selected
mysql> USE shop;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> SELECT * FROM catalogs;
ERROR 1142 (42000): SELECT command denied to user 'shop_reader'@'localhost' for table 'catalogs'
mysql> SELECT * FROM test;
+-----+-----+
| user_id | user_name |
+-----+-----+
|      1 | first     |
|      2 | second    |
|      3 | third     |
+-----+-----+
3 rows in set (0.00 sec)
```